

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P545533

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-80-96-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545533
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-2-LD4-2HI-35-UNV-80-96-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

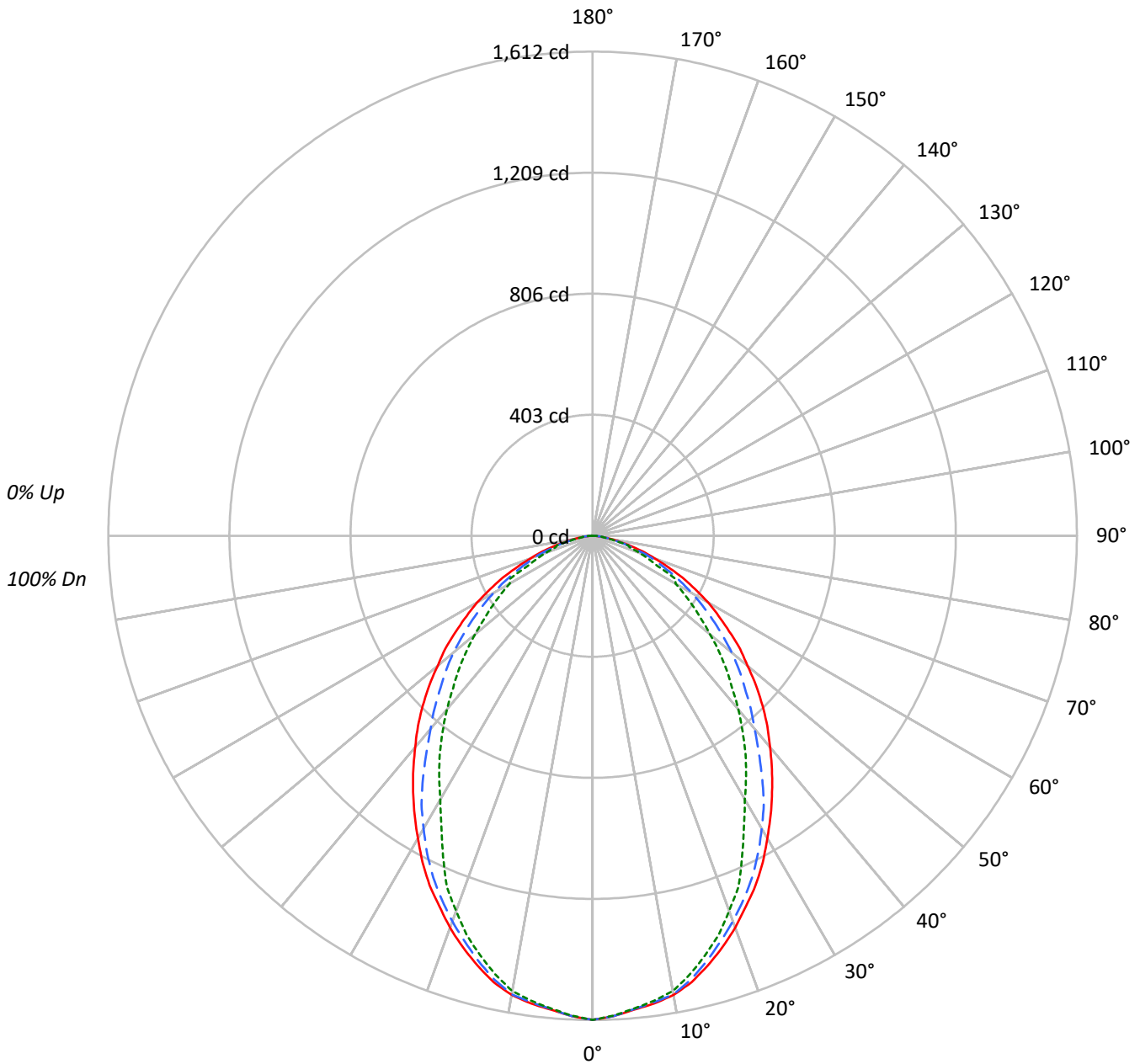
Lumens per Lamp: N/A
Luminaire Lumens: 3164.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8674	8674	8674
5°	8557	8546	8536
10°	8482	8472	8411
15°	8254	8171	8056
20°	7950	7822	7609
25°	7624	7457	6993
30°	7226	6994	6299
35°	6843	6464	5827
40°	6454	5891	5302
45°	6084	5446	4794
50°	5632	5055	4274
55°	5210	4581	3828
60°	4774	4091	3429
65°	4200	3582	3037
70°	3460	3138	2581
75°	2751	2402	2518
80°	1847	1733	1618
85°	1149	1383	1612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.0	4.7
10°-20°	411.7	13.0
20°-30°	570.0	18.0
30°-40°	607.8	19.2
40°-50°	554.5	17.5
50°-60°	434.4	13.7
60°-70°	283.1	8.9
70°-80°	125.4	4.0
80°-90°	26.9	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1131.8	35.8
0°-40°	1739.6	55.0
0°-60°	2728.5	86.2
0°-90°	3164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1584	1582	1582	1580	1580	150
15°	1481	1481	1466	1452	1446	416
25°	1284	1276	1256	1211	1178	589
35°	1042	1034	984	909	887	651
45°	799	783	716	656	630	616
55°	555	538	488	430	408	498
65°	330	311	281	287	238	325
75°	132	123	116	110	121	142
85°	19	20	22	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1611.7	1611.7	1611.7	1611.7	1611.7
2.5°	1600.5	1600.5	1600.5	1598.7	1598.7
5°	1583.8	1581.9	1581.9	1580.0	1580.0
7.5°	1570.7	1568.8	1567.0	1565.1	1561.4
10°	1552.1	1552.1	1550.2	1540.9	1539.0
12.5°	1522.3	1520.4	1512.9	1499.9	1496.2
15°	1481.3	1481.3	1466.4	1451.5	1445.9
17.5°	1436.6	1434.7	1416.1	1401.2	1393.7
20°	1388.1	1384.4	1365.8	1341.5	1328.5
22.5°	1334.1	1334.1	1311.7	1280.0	1267.0
25°	1283.8	1276.3	1255.8	1211.1	1177.6
27.5°	1226.0	1214.8	1192.5	1129.1	1090.0
30°	1162.7	1157.1	1125.4	1043.4	1013.6
32.5°	1103.0	1093.7	1060.2	974.5	950.3
35°	1041.5	1034.1	983.8	909.3	886.9
37.5°	980.1	970.7	907.4	847.8	819.8
40°	918.6	907.4	838.5	784.4	754.6
42.5°	860.8	845.9	778.8	721.1	687.5
45°	799.3	782.6	715.5	655.9	629.8
47.5°	737.8	722.9	661.4	600.0	570.2
50°	672.6	659.6	603.7	542.2	510.5
52.5°	618.6	598.1	544.1	482.6	456.5
55°	555.2	538.5	488.2	430.4	408.0
57.5°	497.5	480.7	434.1	380.1	361.5
60°	443.5	419.2	380.1	333.5	318.6
62.5°	383.8	365.2	331.7	292.5	311.2
65°	329.8	311.2	281.3	286.9	238.5
67.5°	270.2	260.9	234.8	208.7	201.2
70°	219.9	208.7	199.4	171.4	164.0
72.5°	175.1	164.0	150.9	136.0	130.4
75°	132.3	123.0	115.5	109.9	121.1
77.5°	91.3	87.6	82.0	76.4	74.5
80°	59.6	57.8	55.9	54.0	52.2
82.5°	35.4	35.4	35.4	35.4	35.4
85°	18.6	20.5	22.4	24.2	26.1
87.5°	11.2	11.2	13.0	14.9	16.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)